

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES



In 1996 Appln. of: Robert Filepp et al.

Group Art Unit: 2307

Serial No. 08/158,029

Examiner: Wayne Amsbury

Filed: November 26, 1993

Title: METHOD FOR LOCATING APPLICATION RECORDS
IN AN INTERACTIVE-SERVICE DATABASE

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APPEAL BRIEF

Commissioner of Patents and Trademarks
Washington, D.C. 20231

Sir:

Applicants submit this brief in support of their appeal taken by notice dated July 19, 1995 from the decision of the Examiner dated January 19, 1995 which finally rejected Applicants' Claims 1-15 as amended. Based on the arguments presented herein, Applicants request that the Board Of Patent Appeals and Interferences order the final rejection of January 19th 1995 be withdrawn and Applicants, claims 1-15 as amended be allowed and thier application passed to issue.

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REAL PARTY IN INTEREST

The real party in interest of the application on appeal is its assignee, the Prodigy Services Company, a New York State partnership having offices in White Plains, New York, the partners consisting of the International Business Machines Corporation, a New York State Corporation having offices at Armonk, New York and Sears Roebuck & Company, an Illinois corporation having offices in Chicago Illinois.

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STATUS OF CLAIMS

The status of each the claims in the application is as follows:

- Claim 1, Rejected:
Under 35 USC §112, second paragraph; and
Under 35 USC §102(b) in view of U.S. patent 4,429,385, Cichelli et al.;
- Claim 2, Rejected:
Under 35 USC §112, second paragraph; and
Under 35 USC §102(b) in view of U.S. patent 4,429,385, Cichelli et al.;
- Claim 3, Rejected:
Under 35 USC §112, second paragraph; and
Under 35 USC §102(b) in view of U.S. patent 4,429,385, Cichelli et al.;
- Claim 4, Rejected:
Under 35 USC §112, second paragraph; and
Under 35 USC §102(b) in view of U.S. patent 4,429,385, Cichelli et al.;
- Claim 5, Rejected:
Under 35 USC §112, second paragraph; and
Under 35 USC §102(b) in view of U.S. patent 4,429,385, Cichelli et al.;
- Claim 6, Rejected:
Under 35 USC §112, second paragraph; and
Under 35 USC §102(b) in view of U.S. patent 4,429,385, Cichelli et al.;

- Claim 7, Rejected:
Under 35 USC §112, second paragraph; and
Under 35 USC §102(b) in view of U.S. patent 4,429,385, Cichelli et al.;
- Claim 8, Rejected:
Under 35 USC §112, second paragraph; and
Under 35 USC §102(b) in view of U.S. patent 4,429,385, Cichelli et al.;
- Claim 9, Rejected:
Under 35 USC §112, second paragraph; and
Under 35 USC §102(b) in view of U.S. patent 4,429,385, Cichelli et al.;
- Claim 10, Rejected:
Under 35 USC §112, second paragraph; and
Under 35 USC §102(b) in view of U.S. patent 4,429,385, Cichelli et al.;
- Claim 11, Rejected:
Under 35 USC §112, second paragraph; and
Under 35 USC §102(b) in view of U.S. patent 4,429,385, Cichelli et al.;
- Claim 12, Rejected:
Under 35 USC §112, second paragraph; and
Under 35 USC §102(b) in view of U.S. patent 4,429,385, Cichelli et al.;
- Claim 13, Rejected:
Under 35 USC §112, second paragraph; and
Under 35 USC §102(b) in view of U.S. patent 4,429,385, Cichelli et al.;

Claim 14, Rejected:

Under 35 USC §112, second paragraph; and

Under 35 USC §102(b) in view of U.S. patent 4,429,385, Cichelli et al.;

and

Claim 15, Rejected:

Under 35 USC §112, second paragraph; and

Under 35 USC §102(b) in view of U.S. patent 4,429,385, Cichelli et al.

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STATUS OF AMENDMENTS

An amendment that places the application in condition for allowance was filed after the final rejection and is currently pending before the Examiner and is not believed to have been acted upon as yet.

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SUMMARY OF INVENTION

This invention concerns a method of searching for and retrieving records contained in a database provided in a computer network configured to support an interactive service (pg. 2, lns. 12-15; pg. 29, ln. 16-20). In accord with the method, the service is comprised of applications made up of the records, the records, preferably, including pre-created, interactive text/graphic display data formed as objects (pg. 2, lns. 15-17; pg. 9, ln. 15 - pg. 10, ln. 34; pg. 15, ln. 13 - pg. 24, ln. 19). Further, the method features steps for creating search tables that include application-record locators formed as keywords which are indexed to application-record identifiers that indicate the record for the first page of the respective applications, the remainder of the application following therefrom (pg. 2, lns. 17-21; pg. 5, lns. 10-18; pg. 29, lns. 20-29; pg. 30, lns. 16-28; pg. 20, lns. 9-23). Yet further in accord with the invention, the method includes steps for providing each table with a unique designation code that preferably includes an associated character-string mnemonic (pg. 2, lns. 21-23; pg. 5, lns. 18-22; pg. 30, ln. 28 - pg. 31, ln. 7); and steps for disposing the tables in the network so that users can search for applications with a plurality of search procedure strategies (pg. 2, ln. 23-26; pg. 5, lns. 18-22; pg. 31, ln. 13 - pg. 32, ln. 8); each of which strategies generates a common character string for the application sought regardless of the search procedure strategy used (pg. 5, ln. 3 - pg. 6, ln. 6; pg. 32, lns. 9-29). Still further, the method features steps for providing the search tables at the user reception systems so that the application sought can be retrieved in response to the user's request (pg. 2, lns. 26-29; pg. 5, lns. 22-35; pg. 33, ln. 15 - pg. 36, ln. 29).

In accord with the method, when a user of the interactive service desires to have an application presented at the user's network terminal; i.e., reception system, the user can employ one of a number of search procedure strategies to select the application. As shown in Fig. 11 and as explained in the specification beginning at pg. 33, ln. 15, where the user chooses; for example, to select the application by name, the user can

select, the "JUMP" strategy by selecting the "JUMP" command 296 from user interface command bar 290 shown in Fig. 3a. In response, the system presents a "JUMP" screen having an interactive display field at the user's network reception system (like 270 shown in Fig. 3b.) at which the user can enter the "best guess" for the name of the application desired; e.g., "news", "games", etc. (pg. 33, ln. 32 - pg. 34, ln. 1).

Thereafter, and as shown in Fig. 11, in accord with the method, the character string entered as the "best guess" is compared by the system to a set of alphabetically arranged code designations associated with object identifications for the pre-created search tables, the tables as noted above including keyword application locators indexed to object identifications for the page template objects (PTOs) of applications available on the service (pg. 30, lns. 20-33). Following comparison, the object identification for the table most suited to the "best guess" character string is automatically selected and the table provided at the user's reception system (pg. 30, ln. 33 - pg. 31, ln. 7).

Subsequently, the system compares the entered "best guess" to the keyword application locators provided in the table (pg. 34, ln. 1 - pg. 34, ln. 7). If an exact match is made between the "best guess" and a keyword in the table, the identifier to which the keyword is indexed is provided and the object identification for the page template object of the first page for the identified application is produced from the table and the first page of the application, thereafter, retrieved and presented at the user's reception system (pg. 34, lns. 9-13).

In the event there is no match, the user is shown the keywords provided in the called table to enable the user to select the "nearest match" or choose another search (pg. 34, lns. 14-22).

In the case where the user elects to select an alternate search procedure strategy, such as, by selecting the "INDEX", or "DIRECTORY" commands, etc., the user is presented a list of keywords arranged, for example, either alphabetically for "INDEX" or topically for "DIRECTORY" from which a keyword can be selected which, in the fashion noted for the "best guess", will lead to an associated identifier for the object identification of the page template object of the first page for the indicated application.

And, as noted in the case of the "JUMP" strategy, the first page of the application is, thereafter, presented at the user's reception system (pg. 34, ln. 23 - pg. 36 - ln. 29).

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ISSUES

1. Whether the Examiner erred in rejecting Claims 1-15 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regards as their invention.

2. Whether the Examiner erred in rejecting Claims 1-15 under 35 U.S.C. §102(b) as being anticipated in view of U.S. patent 4,429,385, Cichelli et al.

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GROUPING OF CLAIMS

With regard to the Examiner's rejection of claims 1-15 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as their invention, for the reasons more fully described in the Arguments presented below, Applicants' claims do not stand or fall together.

With regard to the Examiner's rejection of claims 1-15 under 35 U.S.C. §102(b), as being anticipated in view of U.S. patent 4,429,385, Cichelli et al. for the reasons more fully described in the Arguments presented below, Applicants' claims do not stand or fall together.

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ARGUMENTS

I. APPLICANTS' CLAIMS DEFINATE UNDER 35 U.S.C. §112

A. The Law:

The Patent Act has long required that :

The [patent] specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

35 U.S.C. §112, second paragraph, (1975)

And, the Court of Appeals for the Federal Circuits and its predecessor the Court of Customs and Patent Appeals have long maintained that patent claims meet the requirement established under the second paragraph of 35 U.S.C. §112 where the claims, when read in light of the specification, reasonably apprise those skilled in the art of their scope. *Miles Laboratories Inc. v. Shandon Inc.*, 997 F.2d 870, 27 USPQ2d 1123, (Fed. Cir. 1993).

Indeed, the *Miles* case *Id.* is neither the first, nor the last occassion on which the Court of Appeals for the Federal Circuit (Federal Circuit) has expressly held that where claims are to be tested for definiteness, they must be evaluated in light of the disclosure provided in the specification. Rather, it is but an example of the long and continuing line of holdings by the Federal Circuit that have established the propostion as a fundemental tenant of patent law.

For example, in *Orthokinetics Inc. v. Safety Travel Chairs Inc.*, 806 F.2d 1565, 1 USPQ2d 1081, (Fed. Cir. 1986) Chief Judge Markey in reversing a lower court's holding of patent invalidity asserted on claim indefiniteness specifically noted:

A decision on whether a claim is invalid under § 112 *Id.* requires a determination of whether those skilled in the art would understand what is claimed when the claim is

read in light of the specification. *Seattle Box Co. v. Industrial Crating & Packing Inc.*, 731 F.2d 818, 826, 221 USPQ 568, 574 (Fed. Cir. 1984); *In re Morasi*, 710 F.2d 799, 803, 218 USPQ 289, 292 (Fed. Cir. 1983).

Id. at 1088 (emphasis added).

Additionally, in *Shatterproof Glass Corp. v. Libby-Owens Ford Co.*, 758 F.2d 613, 225 USPQ 634, (Fed. Cir. 1985), the Court, in affirming a lower court denial of asserted patent invalidity on grounds of claim indefiniteness said:

The amount of detail required to be included in claims depends on the particular invention and the prior art, and is not to be viewed in the abstract but in conjunction with whether the specification is in compliance with the first paragraph of section 112: "If the claims, read in the light of the specifications, reasonably apprise those skilled in the art both of the utilization and scope of the invention, and if the language is as precise as the subject matter permits, the courts can demand no more." *Georgia-Pacific Corp. v. United States Plywood Corp.*, 258 F.2d 124, 136, 118 USPQ 122, 132 (2d Cir.), cert. denied, 358 U.S. 884, 119 USPQ 501 (1958).

Id. at 641 (emphasis added). *See also*, *North American Vaccine Inc. v. American Cyanamid Co.*, 7 F3d 1571, 28 USPQ2d 1333, 1339 (Fed. Cir. 1993).

Accordingly, when claims are to be evaluated for definiteness, they are not to be viewed nakedly, or in a vacuum. Rather, they must be viewed at least in the context of the specification and with reference to the understanding of those skilled in the art to which they pertain.

B. The Rejection Under §112:

In the Official Action dated January 19, 1995 (Action) at pg. 2, par. 2, the Examiner rejected Applicants claims 1-15 under 35 U.S.C. §112, second paragraph, as indefinite on several grounds .

Part 1:

As a first assertion, the Examiner maintained that Applicants' Claims 1-10 were indefinite because of the wording used in Claim 1. The Examiner argued that Applicants' Claim 1 was indefinite because, in his opinion, part (d) was "confusing", and, he continued by saying, that because Claims 2-10 depended from Claim 1, and did not resolve that confusion, they too were indefinite.

Specifically, the Examiner conjectured that part (d) of Claim 1

... appears to state a request for a record causes generation of code designation, which leads to the provision of a group of locators from which a request can be made.

Action, at page 2, lns. 17-20.

Thereafter, the Examiner continued by maintaining:

It is not clear if this is an iterative request involving other locator(s), or if "the" request for a record is a generic request for an as yet unspecified record. In the latter case, "the record" does not have a proper antecedent. In the former case, a locator must be used to generate a new set of locators to request the very record apparently already designated at the locator level.

Action, at page 3, lns. 1-7.

And, based on these premises, the Examiner rejected Applicants' Claim 1 and Claims 2-10 as being dependent from Claim 1 and failing to resolve the noted ground of rejection.

Applicants' Response:

The Examiner's assertions of indefiniteness for Applicants' Claim 1 are incorrect both as a matter of fact and as a matter of law, and accordingly, the rejection must be reversed.

First, in making the rejection, the Examiner has neither referred to the express wording of Applicants' Claim 1, nor made any reference to Applicants' specification for an interpretation of it. Still further, the Examiner has offered no evidence to suggest that one skilled in the art would not understand the scope of Applicants' Claim 1 when

read in light of the specification. Accordingly, the Examiner has failed to make a *prima facie* case for his rejection. *North American Vaccine Inc. Id.*

Further, as is apparent for a reading of the pertinent parts of Applicants' specification and the above-provided summary of the invention, the Examiner has clearly misunderstood Applicants' method.

Specifically, as described in Claim 1, Applicants' invention concerns:

A method of searching for and retrieving records included in a database provided in a computer network, the network having a plurality of reception systems at which respective users can request and retrieve respective records, the method comprising the steps of:

- a. providing record locators indexed to record identifiers for the respective database;
- b. arranging multiple locators and respective indexed identifiers in a plurality of groups, the groups respectively establishing predetermined subset searches of the database records;
- c. assigning code designations to the respective locator groups;
- d. generating a locator group code designation in response to a request for a record so that a group of record locators may be provided at the reception system and so that a locator may be selected which enables identification and retrieval of the record.

With regard to part "d", Claim 1 expressly and plainly states the method includes steps for

generating a locator group code designation in response to a request for a record, so that a group of record locators may be provided at the reception system and so that a locator may be selected which enables identification and retrieval of the record.

And, from a reading of Applicants' specification as highlighted in the above-noted summary of their invention, it is clear that what part (d) covers are: the steps of Applicants' method by which the system generates a character string at the

reception system in response to the entry of an application request by the user with, for example, the JUMP, INDEX or DIRECTORY procedure; and the subsequent steps by which that character string is, thereafter, compared to the sequence set to provide a keyword-object-identifier table at the reception system from which the system can generate a keyword and associated identifier for the page template object of the application requested; and the steps which in turn lead to presentation of the requested application. As described in Applicants' specification beginning at pg. 30, ln. 17:

In the preferred embodiment, the network includes procedures for creating preliminary searches which represent subsets of the network applications users are believed likely to investigate. Particularly, in accordance with these procedures, for the active applications available on network 10, a library of tables [Library of GROUPS] is prepared, and maintained within each of which [GROUP] a plurality of so called "keywords" [LOCATORS] are provided that are correlated with page template objects and object-ids [IDENTIFIERS] of the entry screen (typically the first screen) for the respective application. In the preferred embodiment, approximately 1,000 tables are used, each having approximately 10 to 20 keywords arranged in alphabetical order to abstract the applications on the network. Further, the object-id for each table is associated with a code in the form of a character string mnemonic which is arranged in a set of alphabetically sequenced mnemonics termed the sequence set so that on entry of a character string at an RS 400, the object-id for the relevant keyword table can be obtained from the sequence set. Once the table object-id is identified, the keyword table corresponding to the desired subset of the objects and associated applications can then be obtained from network 10. Subsequently the table can be presented to the user's RS 400, where the RS 400 can provide the data processing required to present the potentially relevant keywords, objects and associated applications to the user for further review and determination as to whether more searching is required. (Emphasis added)

According, when Claim 1 is read in light of Applicants' specification, as the Court of Appeals for the Federal Circuit requires it must be, it is found to be eminently clear as to what it comprehends. Claim 1 is not indefinite.

Additionally, and for the same reasons, the Examiner's assertion of indefiniteness for Claims 2-10 based solely on the dependance of Claims 2-10 from Claims 1, must likewise be found without merit and Claims 2-10 not found indefinite because of any dependance from Claim 1.

As would be apparent for the above discussion, the indefiniteness asserted against Applicants' Claims 1-10 has no relevance to Applicants' Claims 11-15, and comparably, the respective alleged grounds of indefiniteness asserted by the Examiner against Applicants Claims 11-15, as will be discussed below, have no relevance to Applicants' Claims 1-10.

Part 2:

As a second assertion of indefinitness, the Examiner maintained that Applicants' Claim 6 was indefinite, and by virtue of the dependance of Claims 7-10 from Claim 6, that Claims were, likewise considered indefinite.

More specifically, and with regard to Applicants' Claim 6, the Examiner states:

One of ordinary skill in the art understands that a record can contain code capable of supporting interaction, and that retrieval of a record may invoke the execution of a routine.

Nevertheless, it is not clear that a record in and of itself can be an "interactive application," which is a process, not a data structure.

Action at pg. 3, lns. 15-20.

Additionally, and as in the fashion of the prior rejection for indefinitness, based on the premises that Claim 6 was indefinite, the Examiner then rejected the claims that depended from Claim 6; i.e., Claims 7-10.

Applicants' Response

As in the case of the prior rejection, the Examiner's assertion of indefiniteness is without foundation both as a matter of fact and as a matter of law and must be reversed.

Once again, the Examiner has give no consideration to either the interpretation of Claim 6 in view of the pertinent parts of Applicants' specification, or the interperatation that would be given to the Claim by one skilled in the art. As pointed out by the Court of Appeals, in *In re Warmerdam*, 33 F3d 1354, 31 USPQ2d 1754, (Fed. Cir. 1994), where concepts are well known in the art to which claimed matter relates, absent a showing, a naked asertion of indefiniteness by the Examiner is insufficient.

Applicants would submit that Claim 6 as currently worded, would be readily understood by one skilled in the art when read in light of the specification. As currently worded, Claim 6 states:

The method of claim 5 wherein the records to be searched for and retrieved are interactive applications associated with an interactive service, and wherein the applications are arranged to be generated from objects.

Further, as explained in Applicants' specification at pg. 20, Ins. 16-29:

Continuing, in accord with the method of the present [invention], as a further feature, network 10 includes an improved procedure for searching and retrieving applications from the store of applications distributed throughout network 10; e.g., server 205, cache/concentrator 302 and RS 400. More specifically, the procedure features use of pre-created search tables which represent subsets of the information on the network arranged with reference to the page template objects (PTO) and object-ids of the available applications so that in accordance with the procedure, the relevant tables and associated objects can be provided to and searched at the requesting RS 400 without need to search the entire store of applications on the network.

And, at pg. 20, Ins. 16-23:

... page template object 500 includes the specific program calls required to execute the screens associated with the application being presented to the user, and may serve as the means for the user to selectively move through; i.e., navigate the pages of interest which are associated with various applications. Thus, in effect, page template objects 500 constitute the "recipe" for making up the collection of text and graphic information required to make the screens to be presented to the user.

And again, it is respectfully submitted, that in view of the teaching in Applicants' specification one skilled in the art would readily understand Claim 6 to cover use of the inventive method with an interactive service having applications made up of objects. Accordingly, neither can Applicants' Claim 6 be said to be indefinite, nor, on the grounds of dependency alone, can Claims 7-10 which depend from it, be said to be indefinite.

However, in the interest of simplifying the issues in this appeal, Applicants have proposed to amend Claim 6 to read as follows:

(Twice Amended) The method of claim 5 wherein the records to be searched for and retrieved are objects used in generating interactive applications associated with an interactive service[, and wherein the applications are arranged to be generated from objects].

In view of the proposed amendment, it is submitted that the Examiner's rejection of Claims 6-10 on the grounds noted has been rendered moot. It is also to be noted, that the grounds the Examiner asserts against Claim 6, have no relevance to Applicants' Claims 1-5. And, by virtue of this, Claims 1-5 must be found proper, no other untraversed objection having been raised against them.

Part 3:

As a third assertion ground of indefiniteness, the Examiner stated that because Applicants' amendment of Claim 11 filed October 24, 1994 included in part "f" one left

bracket and two right brackets, Claim 11 was indefinite, and accordingly, so to were Claims 12-15 which depend from it.

Applicants' Response

Once again, in the interest of advancing this appeal, Applicants have proposed to suitably amend the Claim in question to remove the basis of the Examiner's rejection and moot the issue.

Part 4

As a fourth asserted ground of indefiniteness, the Examiner maintains, that Applicants' Claim 13 is indefinite because the phrase "the table code identifiers" included in Claim 13 has no antecedent basis. Additionally, the Examiner further maintains that Claims 14, 15 which depend from Claim 13, because of that dependance are likewise indefinite.

Applicants' Response

The ambiguity noted by the Examiner in Claim 13 is acknowledged, it having arisen as a typographical error in the original text of the application. Accordingly, Applicants have proposed to amend Claim 13 to change the objected to phrase to "the table code designations", the originally intended phrase, as evident in Claim 11 from which it depends. Accordingly, as to Claims 13-15, the Examiner's rejections have also has been rendered moot by the proposed amendment.

Part 5:

As a fifth asserted ground of indefiniteness, the Examiner maintains that Applicants' Claim 15 is ambiguous by virtue of the phrase "the corresponding test and graphic data" recited in Claim 15 not having an antecedent.

Applicants' Response:

Once again in the interests of advancing this appeal, Applicants have proposed an amendment to the Claim objected to in order to render the rejection moot. Specifically, Claim 15 has been reworded so that number agreement for the application requested is maintained.

Therefore, in view of the above-noted remarks and proposed amendments, Applicants would respectfully submit that the Examiners' rejections of Claims 1-15 on grounds of indefiniteness have either been shown to be improper as a matter of fact and as a matter of law, or rendered moot by virtue of the claim amendments proposed.

II. APPLICANTS' CLAIMS PATENTABLY DISTINGUISHED OVER THE CITED ART:

A. The Law:

The Patent Act provides:

A person shall be entitled to a patent unless -

...
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States,

35 U.S.C. §102(b), (1975).

As in the case of §112 of the Patent Statute, the Court of Appeals for the Federal Circuit and its predecessor the Court of Customs and Patent Appeals have established and long maintained what the requirements are for this provision. Specifically, the Court of Appeals for the Federal Circuit (Federal Circuit) has repeatedly held that a claimed invention is not unpatentable unless, and only unless, each and every element set out in its claims can be found, either expressly or inherently in a single prior art reference. Stated otherwise, in order for a reference to deny patentability to a claimed invention under §102(b); i.e., "anticipate" a claimed invention, the reference must disclose expressly or inherently, each and every element of the claimed invention.

Kloster Speedsteel AB v. Crucible, Inc., 793 F.2d 1565, 1571, 230 USPQ 81, 84 (Fed. Cir. 1986), *cert. denied*, 479 U.S. 1034 (1987); *Elmer v. ICC Fabricating Inc.*, 36 USPQ2d 1417, 1419-1420 (Fed. Cir. 1995).

As pointed out by the Court, in *Kloster*.

Stora, [The party asserting anticipation] however, must show that each element of the claim is found in that single prior art reference. *Kalman v. Kimberly-Clark Corp.*, 713 F.2d 760, 771, 218 USPQ 781, 789 (Fed. Cir. 1983), *cert. denied*, 465 U.S. 1026, 224 USPQ 520 (1984). The corollary of that rule is that absence from the reference of any claimed element negates anticipation. *Atlas Powder Co.*, 750 F.2d at 1573-74, 224 USPQ at 411.

Id. at 84.

As further observed by the Court, the test for anticipation is a strict one, each and every element of the claimed invention must be found in a single reference. As noted by the Court in *Richardson v. Suzuki Motor Co. Ltd.*, 869 F.2d 1226, 9 USPQ2d 1913 (Fed. Cir. 1989):

The district court correctly instructed the jury that an invention is anticipated if the same device, including all the claim limitations, is shown in a single prior art reference. Every element of the claimed invention must be literally present, arranged as in the claim. *Perkin-Elmer Corp.*, 732 F.2d at 894, 221 USPQ at 673; *Kalman v. Kimberly-Clark Corp.*, 713 F.2d 760, 771-72, 218 USPQ 781, 789 (Fed. Cir. 1983), *cert. denied*, 465 U.S. 1026 [224 USPQ 520] (1984). The identical invention must be shown in as complete detail as is contained in the patent claim. *Jamesbury Corp.*, 756 F.2d at 1560, 225 USPQ at 256; *Connell*, 722 F.2d at 1548, 220 USPQ at 198.

Richardson Id. at 1920.

And, in this regard, the Court has further pointed out that the alleged anticipation must be "complete", that is needing no further support to show that the public was in possession of the claimed invention previously. In *Connell et al. v. Sears, Roebuck & Co.*, 722 F.2d at 1542, 220 USPQ 193 (CA FC 1983), the Court in reversing a lower court holding of anticipation noted:

The opinion [of the court below] says anticipation may be shown by less than "complete anticipation" if one of ordinary skill may in reliance on the prior art "complete the work required for the invention", and that "it is sufficient for an anticipation 'if the general aspects are the same and the differences in minor matters is only such as would suggest itself to one of ordinary skill in the art.' " Those statements relate to obviousness, not anticipation. Anticipation requires the presence in a single prior art disclosure of all elements of a claimed invention arranged as in the claim. *Soundscriber Corp. v. U.S.*, 360 F.2d 954, 960, 148 USPQ 298, 301 (Ct. Cl. 1966).

Id. at 198.

B. The Rejection Under §102(b):

1. Overview

In the Official Action dated January 19, 1995, (Action) at pg. 5, par. 3, the Examiner rejected Applicants claims 1-15 under 35 U.S.C. §102(b) as anticipated by U.S. patent 4,429,385 issued to Cichelli et al. (Cichelli et al.). In advancing the rejection, the Examiner maintained that the basis for his action was the "correspondence" he contended existed between the elements of Applicants' claims and the teachings of Cichelli et al.

Review of the Cichelli et al. patent, however, shows not only is there no correspondence between the elements of Applicants' claims and the Cichelli et al. teaching, but, indeed, that the Cichelli et al. teaching is diametrically opposed to Applicants' invention. Accordingly, not only does Cichelli et al. not anticipate Applicants' invention, but in fact, it teaches away from it. And, it would be clear to anyone skilled in the relevant art that because of the fundamental conceptual and design differences between Cichelli et al. and Applicants' invention that it would not be possible to restructure the Cichelli et al. system to render it relevant to Applicants' invention. Accordingly, the Examiner's rejection of Applicants' claims based on

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Cichelli et al. is in error both as a matter of technical fact and as a matter of law. It must be reversed.

Cichelli et al. expressly teach use of a non-interactive, Teletext-type system. For their design, they propose use one-way, television broadcast technology (col. 1, lns. 8-15; col. 15, lns. 1-32; Fig. 1), a sequential database structure (col. 14, lns. 15-37, col. 8, lns. 37-48, Figs. 3A, 3B) and frame-grabber receiver techniques (col. 8, lns. 48-64; col. 16, lns. 4-49; col. 20, ln. 38 - col. 21, ln.30; Figs. 2, 5A, 5B, 5C, 6), technology Cichelli et al. themselves acknowledge as constituting Teletext (col. 7, ln. 55 - col. 8, ln. 34).

Still further, Cichelli et al. expressly admit that their Teletext, one-way communication approach is technically distinguished from the alternative, two-way communication approach of viewdata (interactive videotext) which forms the basis of Applicants' system (col 2, lns. 13.-23). Yet further, Cichelli et al. assert that interactive videotext systems such as that of the Applicants have technical and financial problems due to use of two-way communication and host-centered architectures that render them unsuited for applications to which the Cichelli et al. Teletext system is applied, specifically a classified ad review system (col. 3, ln. 21 - col. 4, ln. 15). Accordingly, Cichelli et al. expressly teach away from the approach Applicants' propose, and thus, can not be said to disclose or suggest Applicants' invention.

Further, as a non-interactive, Teletext system, Cichelli et al. propose and use a fundamentally different database structure and record accessing procedure than is used by Applicants. Specifically, Cichelli et al. use a "sequential" structure for their database in which data records are positioned in serial order, and for which all records are required to be streamed passed the searching facility in order to effect record retrieval. This is fundamentally and directly opposed to the "direct-access" database approach employed by Applicants in which record identification numbers are used for randomly accessing records from the database to effect retrieval without need for streaming. As explained by Cichelli et al. their sequential database approach is comparable to tape files, which, because of the streaming requirement tend to be small in size and of limited use, as compared to random-access files associated with direct access technology which is comparable to a record disks approach and is much more

widely and commonly used. (Cichelli et al. at col. 7, lns. 1-47; col. 14, lns. 15-37, col. 8, lns. 37-48, Figs. 3A, 3B. as compared to Applicants' teaching at pg. 10, lns. 14-34 of their specification and elsewhere).

This fundamental difference in databases structure between the teaching of Applicants and Cichelli et al. give rise to further contradictions between the two approaches that go to the heart of Cichelli et al.'s. inability to suggest or disclose Applicants' invention.

As will be described more fully below in connection with the Examiner's rejection of Applicants' respective claims, because of their sequential database structure Cichelli et al. must directly search potentially the entire database to be sure of finding a desired record each time a search is undertaken. There is no way to "jump" from one point in the database to another without passing through all intervening records. This is an inherent limitation of a sequential accessed structures as Cichelli et al. themselves note. And, it is this limitation that increases record access time and restricts the potential size of the record database.

Accordingly, with the Cichelli et al. teaching, there is also no way to divide the database into subset searches in an attempt to limit record access time as taught by Applicants'; i.e., the database can not be randomly accessed. In the Cichelli et al. system, where the sequence position of a desired record has just streamed past the selection point, the entire database must be searched again until the record once more comes around to the selector circuit.

Still further, to search this sequentially accessed database, Cichelli et al. propose use of a conventional, manual, menu-driven search procedure. Specifically, to request a record, (which Cichelli et al. term a "frame") Cichelli et al. require that the user manually step through a sequence of multiple, screen displays to produces a single, record identifier which subsequently can be used to set the Cichelli et al. selector circuit so it can pull the desired record from the cycling data stream. And, as would be immediately apparent to one skilled in the relevant art, once again, there is absolutely no way to "jump" i.e., randomly access a desired record. Rather, the user

must manually follow the prescribed menu sequence until a desired record is found.

It is only at that point, that the record identifier is generated and the selector set to pull off the record the next time it streams past the user's terminal.

And, as is immediately apparent, there simply is no way to short cut this process in the manner prescribed by Applicants. In the Cichelli et al. approach, there are no precreated searches in the form of coded groups of record locators indexed to record identifiers; , or generation of a group code designation in response to a request for a record, which, in turn, provides a group of locators at the user terminal from which the requested record can be identified and retrieved. *Richardson v. Suzuki Motor Co. Ltd.*, 869 F.2d 1226, 9 USPQ2d 1913 (Fed. Cir. 1989).

Cichelli et al. neither suggests nor discloses Applicants' invention as claimed.

2. The Examiner's Application of the Art to the Claims

Claim 1

In the Official Action, the Examiner contends that the recited elements of Applicants' invention can be found in the Cichelli et al. system, and that accordingly, the Cichelli et al. teaching anticipates Applicants' Claim 1. (Action, at pg. 6, ln. 1).

Specifically, in reliance on the Cichelli et al., disclosure, the Examiner asserts the following correspondence between Applicants' recited claim elements and the Cichelli et al. disclosure:

Cichelli et al. Disclosure

1. col. 1, lns. 8-31;

2. col. 8, lns. 43-44;

Applicants' Claim Elements

A method of searching for and retrieving records included in a database provided in a computer network, the network having a plurality of reception systems at which respective users can request and retrieve respective records, the

providing record locators indexed to record

lns. 55-58; col. 9, lns. 31-63;
lns. 47-51; lns. 36-38;
col. 9, lns. 1-4;

identifiers for the respective database

3. col. 9, lns. 5-29;

arranging multiple locators and respective indexed identifiers in a plurality of groups, the groups respectively establishing predetermined subset searches of the database records

4. col. 9, lns. 5-16;

assigning code designations to the respective locator groups

and

5. col. 9, lns. 47-53;

generating a locator group code designation in response to a request for a record so that a group of record locators may be provided at the reception system and so that a locator may be selected which enables identification and retrieval of the record.

Action at pg. 6, ln. 1 pg. 7, ln. 11.

Applicants' Response:

On review of the Cichelli et al. disclosure, however, the Examiner's assertions are found to be incorrect as a matter of technical fact, and accordingly, the Examiner's rejection of Applicants' Claim 1 is improper as a matter of law and must be reversed.

First, with regard to the preamble of Applicants' Claim 1 (item 1 above), a reading of the specification sections the Examiner cites, shows Cichelli et al. do not disclose the Applicants' claim preamble. The Examiner noted specification section describes a system for "broadcasting and receiving" digital data, which, as noted above, is a non-interactive, Teletext system (one-way, television broadcast technology, col. 1, lns. 8-15; col. 15, lns. 1-32; Fig. 1; a sequential database structure, col. 14, lns. 15-37, col.

8, lns. 37-48, Figs. 3A, 3B; and frame-grabber reception techniques col. 8, lns. 48-64; col. 16, lns. 4-49; col. 20, ln. 38 - col. 21, ln.30; Figs. 2, 5A, 5B, 5C, 6).

Applicants' system, however, is a two-way, fully interactive, Videotext network, which for the reasons also noted concerning data base structure, search capability and interactivity is, as admitted by Cichelli et al., substantial different, and distinguished from the Teletext system they propose. Cichelli et al. neither suggests nor discloses the network recited in Applicants' claims, indeed Cichelli et al. teach away form it.

Next, the Examiner contended that Applicants recital of "record locators indexed to record identifiers" (item 2) is disclosed by sections of the Cichelli et al. specification he notes. Once again, however, a reading of the Cichelli et al. specification shows that this is not at all the case. As described by Cichelli et al., to reach a record, (frame), the user must manually travel through a sequence of menu, sub-menu, relational and data screens to produce the "path part" and "attribute part" of the Cichelli et al. record identifier, and then, and only then, does Cichelli et al. system have a record identifier which can be used to set the system selector to capture a record from the streaming database (col. 11, ln. 16 - col. 12, ln. 52; col. 16, ln. 65 - col. 17, ln. 38.; col. 14, lns. 15-67; col. 8, ln. 64 - col. 9, ln. 4; col. 9, lns. 35-46). The point is, Cichelli et al. does not provide locators "indexed" to identifiers. At best, Cichelli et al. only provide a manual procedure for the user to specify the identifier of a desired record. And, the very sections of the Cichelli et al. specification the Examiner relies on directly support Applicants' observations.

Continuing, the Examiner further asserted that Cichelli et al. describes arranging locators indexed to identifiers in groups, the groups establishing predetermined subset searches of the database (item 3). Once more, the Examiner's assertion is incorrect as a matter of technical fact and the section of the Cichelli et al. specification he cites teach otherwise. Cichelli et al. not only fail to disclose establishment of any predetermined searching of the database, but, indeed, because of the sequential nature of the database are unable to randomly enter the database at all as described above.

Still further, there is no predetermined grouping of locators and identifiers as recited by Applicants. At most all that can be done with the Cichelli et al. system is to have the user manually seek a record identifier by traversing a particular sequences of menu, sub-menu, relational and data screen of the users choice each time the user wishes to select a record (col. 11, ln. 16 - col. 12, ln. 52; col. 16, ln. 65 - col. 17, ln. 38.; col. 14, lns. 15-67; col. 8, ln. 64 - col. 9, ln. 4; col. 9, lns. 35-46). This is exactly the short coming Applicants' invention overcomes.

Additionally, the Examiner contended, Cichelli et al. assign a code designations to record locator-identifier groups, as recited in Applicants' Claim 1 (item 4). However, as is apparent from their specification, Cichelli et al. not only fails to teach the application of code designations to groups of locators indexed to identifiers, Cichelli et al. having no groups of locators indexed to identifiers, as noted above, but, further, the Cichelli et al. teaching is devoid of any procedures for generating any codes other than its record identifier. And, the Examiner has failed to show any such codes or their generation in the Cichelli et al. specification sections he refers to.

Finally, the Examiner still further asserted that Cichelli et al. teaches the generation of a group code designation in response to a user record request, and the providing of a locator group at the user terminal in response to the generated code designation which enables record retrieval (item 5). Here also the Examiner's assertions is in error as a matter of technical fact.

As explained by Cichelli et al. the only code generated in their process is the record identification code, which is generated at the end of the user's manual navigation of the multiple screens required to be entered to request a record (col. 14, lns. 26-37). Cichelli et al. use only a single identifier to retrieve records. That identifier includes a fame number, a path part and an attribute part, and as noted is generated manually by requiring the user to sequentially step through a series of successive menu, sub-menu and relation screens until a desired data screen is arrived at.

Accordingly, in the Cichelli et al. teaching, there are no group designation codes generated which lead to the record identification. Cichelli et al. directly generate the

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record identification with reference to the full database - there is no disclosure of "shortcutting" that process by accessing a predetermined subset of the database provided in a locator-identifier group or generating a code designation to retrieve such a group as taught by Applicants.

Indeed, the Examiner admitted his interpretation of this aspect of Applicants' Claim 1 was flawed in connection with his indefiniteness rejection of Claim 1 (see the Action at pg. 2, lns. 8-11. However, had the Examiner read Claim 1 in light of the specification, as required by law, he would have seen that Applicants' invention as claimed comprehends method steps that are plainly patentably distinguished from the Cichelli et al. teaching.

According, based on the above, it is clear that Cichelli et al. indeed does not include record locators indexed to record identifiers; or arranging locators and indexed identifiers in groups to establish predetermined subset searches of the database; or assignment of code designations to such group; or generation of group code designation in response to a record request so that a group of record locators may be provided at the reception system and so that a locator may be selected which enables identification and retrieval of a record.

In view of the above, it can not be said that Applicants' claim 1 is anticipated by Cichelli et al.

Accordingly, the Examiner rejection of Claim 1 under §102(b) is in error and must be reversed. *Richardson v. Suzuki Motor Co. Ltd.*, 869 F.2d 1226, 9 USPQ2d 1913 (Fed. Cir. 1989).

Claim 2

In rejecting Applicants' Claim 2, the Examiner merely asserts that Claim 2 is anticipated by the Cichelli et al. example menu shown at col. 11 of the patent (Action, pg. 7, ln. 16).

Applicant's Response:

The Examiner's rejection of Claim 2 is clearly inadequate and fails to make *prima facie* case of anticipation.

In pertinent part Applicants' Claim 2 recites:

The method of claim 1 wherein providing record locators indexed to record identifiers includes setting the locators as mnemonics that are indexed to the respective identifiers for the respective records in the database

As is apparent from the Cichelli et al. menu at col. 11, no indexing of record locators to record identifiers for respective database records is shown at all. Moreover, even if for the sake of argument the menus were considered to include keywords, those keywords are indexed to nothing and have no effect until a user manually completes all selections from all the successive menus, sub-menus and other screens required to manually produce a record identification. Simply put, the Cichelli et al. menus do not disclose locators indexed to respective identifiers for respective database records. Direct and fixed linking of the locator to an identifier for a respective record as taught by Applicants and as recited in Applicants' claims is neither shown nor suggested. On its face, the Examiner's assertion of anticipation is inadequate and in error. It must be reversed. *Richardson v. Suzuki Motor Co. Ltd.*, 869 F.2d 1226, 9 USPQ2d 1913 (Fed. Cir. 1989)

Moreover, in view of the absence of any teaching in Cichelli et al. suggesting or disclosing predetermined indexing of locators and identifiers, or indexing of locators configured as mnemonics, and the absence of any other pertinent art suggesting or disclosing such features, Applicants' Claim 2 must be deemed patentable despite the Examiner's rejection of Claim 1.

Claim 3:

In rejecting Claim 3, the Examiner again merely offers a terse assertion to support the rejection. Specifically, he states: "Col 11 lines 36-42, where the locators are

screens of various types, each of which is indexed to a group or records." (Action, pg. 7, lns. 22,23).

Applicants' Response:

Here as well, the Examiner's rejection is incorrect and inadequate as a matter of fact and law.

Claim 3 reads:

The method of claim 2 wherein arranging the locators in groups includes arranging the locator mnemonics in tables in which the respective mnemonics are indexed to the respective record identifiers.

By his own statement, the Examiner demonstrates the error of the contrived identity he seeks to assert. In the rejection, the Examiner maintains that the "screens" of Cichelli et al. are the "locators" of Applicants - in that case, however, the "locators" can not be mnemonics as required in by Applicants' Claim 2 which feature is a part of Claim 3 by virtue of the dependancy. Clearly, "screens" can not be mnemonics. Moreover, the Cichelli et al. screens are plainly not "tables" as expressly required by Claim 3. And, the Examiner's reference to the Cichelli et al. specification to support his assertion that the Cichelli et al screens are tables is equally unavailing. The Examiner's reference to col. 11, lns. 36-42 merely confirms that Cichelli et al. require the user to manually navigate sequences of menu screens to effect identification of records.

The Examiner's rejection is inadequate under the law and must be reversed. *Kloster Speedsteel AB v. Crucible, Inc.*, 793 F.2d 1565, 1571, 230 USPQ 81, 84 (Fed. Cir. 1986), *cert. denied*, 479 U.S. 1034 (1987).

Moreover, in view of the absence of any teaching in Cichelli et al. suggesting or disclosing organization of indexed locator-identifier groups arranged as tables with the locators provided as mnemonics, and the absence of any other pertinent art suggesting or disclosing such features, Applicants' Claim 3 must be deemed patentable despite the Examiner's rejection of Claim 1 and 2.

Claim 4

In rejecting Claim 4, the Examiner asserts that where a database concerns classified ads, it is well known to arrange the ads in alphabetical order, citing Cichelli et al. at col. 5, lns. 29-31 (Action at pg. 8, lns. 9-14).

Applicants' Response

Here as well, the Examiner asserted rejection is improper as both a factual matter and a matter of law. It must be reversed.

Claim 4 reads:

The method of claim 3 wherein assigning code designations to the respective locator groups includes establishing the respective code designations as alphabetically sequenced character strings such that when a character sequence is entered at a reception system to designate a requested record, a locator table may be provided at the reception system from which a group of respective record identifiers may be selected.

The Examiner has lost sight of the fact that Applicants Claim 4 concerns the identification of locator-identifier groups; i.e., the tables, not the content of those tables which include the keyword locators indexed to object identifiers. Accordingly, while for the sake of argument, in view of known ad databases, it might make sense to organize the keywords within a table alphabetically, that fact does not bear upon how the tables which, are unseen by the user and internal to the system, should be organized. Accordingly, while the Examiner's suggestion that "sub-menus" might logically contain alphabetically arranged headings is relevant to keyword (locator) organization, it is not relevant to what is managed unseen within the system.

Still further, the Examiner has also lost sight of the fact that in accordance with the Cichelli et al. teaching, no codes other than the record identifier are generated. Therefore, based on the Cichelli et al. teaching, there would be no table codes to assign.

Cichelli et al. fail entirely to suggest or disclose use of table codes or the

establishing of table codes as alphabetically arranged character strings. The Examiner's rejection is without foundation as a matter of fact and law and must be reversed. *Kloster Speedsteel AB v. Crucible, Inc.*, 793 F.2d 1565, 1571, 230 USPQ 81, 84 (Fed. Cir. 1986), *cert. denied*, 479 U.S. 1034 (1987).

In view of the absence of any teaching in Cichelli et al. suggesting or disclosing use of locator-identifier group (table) codes or the providing of those codes as alphabetically arranged character strings and the absence of any other pertinent art suggesting or disclosing such features, Applicants' Claim 4 must be deemed patentable despite the Examiner's rejection of Claim 1- 3.

Claim 5:

The Examiner has offered absolutely no basis for rejecting Applicants' Claim 5.

Applicants' Response:

In view of the Examiner's failure to offer any basis for the rejection of Claim 5, he must be deemed to have failed to make a *prima facie* showing of anticipation. Accordingly, the rejection of Claim 5 must be reversed as improper.

Applicants' Claims 5 expressly requires:

The method of claim 4 wherein providing record locators indexed to respective record identifiers includes establishing the locators as keywords and wherein the character sequence entered at the reception system to designate a requested record may be entered using a plurality of search procedures.

Applicants' Claim 5 is distinguished from the art cited by requiring both that the locators which are indexed to identifiers for respective records be provided as keywords, and for requiring that a request for a record might be entered with a plurality of search procedures. Applicants would note that Cichelli et al. provides for entry of record request with only a single procedure, specifically navigation through the multiple menu, sub-menu, relational and data screens Cichelli et al. discloses.

There is absolutely not suggestion or disclosure offered by Cichelli et al. for undertaking record retrieval with other than the single search procedure described. Accordingly, the rejection of Applicants Claim 5 must be reversed and Claim 5 allowed despite the Examiner's rejection of Claims 1-4.

Claim 6.

In rejecting Claim 6, the Examiner has once more said substantially nothing. To support the rejection, the Examiner cryptically refers to Cichelli et al. at "Col. 8, lines 45-47". However, the noted section of the Cichelli et al. specification refers only to the possible inclusion of non-display data; as for, example programs, in the data portion of the in the Cichelli et al records (Action, at pg. 8, ln. 18).

Applicants' Response:

Once more the Examiner's rejection is improper both as a matter of technical fact and as a matter of law. The rejection must be reversed.

Applicants' Claim 6 reads:

The method of claim 5 wherein the records to be searched for and retrieved are interactive applications associated with an interactive service, and wherein the applications are arranged to be generated from objects.

As noted above in Applicants comments included in the Rejection Overview, the Cichelli et al. System is a non-interactive, Teletext system offering only one way communication (one-way, television broadcast technology, col. 1, lns. 8-15; col. 15, lns. 1-32; Fig. 1; a sequential database structure, col. 14, lns. 15-37, col. 8, lns. 37-48, Figs. 3A, 3B; and frame-grabber reception techniques col. 8, lns. 48-64; col. 16, lns. 4-49; col. 20, ln. 38 - col. 21, ln.30; Figs. 2, 5A, 5B, 5C, 6). Moreover, Cichelli et al. at col. 3, lns. 3-54 expressly note that a system such as theirs are unsuited for interactive applications which are more correctly handled with two-way, transactional systems of the type to which Applicants' invention applies to. More specifically, Cichelli et al. note that

sequential databases of the type they use "are only appropriate for tape and small disk data files. Seldom do sequential data bases exceed a thousand records in typical diskbased computer systems. Because of this application size restriction, limited research has been done in the technology of sequential data bases" (col. 7, lns. 39-47).

And, Cichelli et al. expressly point out that data size of each record is limited to approximately 2K bytes (col. 20, lns. 15-19).

Accordingly, in view of both the limited record size and limited number of total records that can be accommodated to maintain acceptable record access time, the Cichelli et al. system would not be a suitable candidate for providing interactive service applications of the type proposed by Applicants. Therefore, not only do Cichelli et al. not disclose or suggest use of interactive applications, but indeed, they expressly teach away from such use with their system.

Yet further, Cichelli et al. make no suggestion or disclosure whatsoever for formulating the interactive applications referred to in Claim 6 with objects as proposed and taught by Applicants (Applicants' specification at pg. 15, ln. 13 - pg. 24, ln. 19).

Cichelli et al. fail entirely to suggest or disclose Applicants' Claim 6. Accordingly, the Examiner's rejection of Claim 6 must be reversed. *Kloster Speedsteel AB v. Crucible, Inc.*, 793 F.2d 1565, 1571, 230 USPQ 81, 84 (Fed. Cir. 1986), *cert. denied*, 479 U.S. 1034 (1987).

In view of the absence of any suggestion or disclosure in the teaching of Cichelli et al. to formulate records which are to be retrieved as objects for supporting interactive service applications, and the absence of any other pertinent art suggesting or disclosing such features, Applicants' Claim 6 must be deemed patentable despite the Examiner's rejection of Claim 1-4.

Claim 7

In rejecting Claim 7, the Examiner offers an abstruse argument concerning the possible use of objects in the program code suggested as might be included in the

display data portion of Cichelli et al. records noted at col. 8, lns. 45-47 of their specification (Action, at pg. 8, lns. 24-27).

Applicants' Response:

Once more, the Examiner's rejection is incorrect and inadequate as a matter of fact and law. It must be reversed.

Claim 7 reads as follows:

The method of claim 6 wherein providing locator keywords indexed to respective record identifiers includes establishing the identifiers as object identifications

As noted, Cichelli et al. offer no suggestion or disclosure at all for forming records as objects. Accordingly, absent any suggestion for use of objects, there can be absolutely no suggestion to form record identifier to be included in the keyword-locator groups as an object identifier. Moreover, since Cichelli et al. expressly requires the record identifier of their system to be fashioned in a very specific fashion; i.e., including a path part, an attribute part as well as a frame number, its is unclear if the Cichelli et al. system could accommodate any change at all. Accordingly, Cichelli et al. in fact teach away for use of object identifiers. Plainly, the Examiner's speculation to include objects with the Cichelli et al. teaching is motivate purely by hindsight based on Applicants' teaching, a basis for suggestion strictly prohibited by the law.

Cichelli et al. neither suggest, nor disclose Applicants' Claim 6. Accordingly, the Examiner's rejection of Claim 7 must be reversed.

In in view of the absence of any suggestion or disclosure in the Cichelli et al. teaching for use of object records or the use of object identifications in the indexed grouping of locators and identifiers, and the absence of any other pertinent art suggesting or disclosing such features, Applicants' Claim 7 must be deemed patentable despite the Examiner's rejection of Claim 1- 4, and 6.

Claim 8:

In rejecting Claim 8, the Examiner asserts that Cichelli et al. discloses use of multiple search procedures for identifying and retrieving records. Specifically, the Examiner suggests that at col. 6, lns. 40-68 of their specification, Cichelli et al. propose the use of attributes and keywords as alternate search procedures (Action, pg. 9, lns. 9-11).

Applicants' Response:

In asserting that Cichelli et al. propose use of multiple search procedures, the Examiner is simply incorrect as to what the Cichelli et al. specification discloses. The Examiner's rejection is incorrect as a matter of fact and a matter law. The rejection must be reversed.

Claim 8 reads as follows:

The method of claim 6 wherein one of the multiple search procedures for entering the character sequence at the reception system includes entering the character sequence as a description of a desired application.

As a first point the character sequence referred to in Claim 8, is the sequence that is used to select the code designation for the locator-identifier group. , See Claim 5. As noted above in connection with the rejection of Claim 4, Cichelli et al. do not generate a group code designation at all. Accordingly, it can not be asserted to do so with several different procedures. In fact what the Examiner is mistakenly referring to is entry of locators included within the groups; i.e., the keywords within the tables. Accordingly, the Examiner's assertion is based on a factually incorrect initial premise.

Still further, as a second point, the Examiner's assertion is incorrect as a misreading of the Cichelli et al. specification. Cichelli et al. employ but a single

procedure for entering the user record request, specifically manual entry of a user-selected sequence of menu, sub-menu, relational and data screens upon which alternative choices must be designated (see col. 11, ln. 18 - col. 12, ln. 52). While, Cichelli et al. note that alternate, independent procedures could be used in searching; for example keywords or attributes, they propose to combine these approaches in the menu, sub-menu, and relational screen they offer to provide a single, integrated search procedure that the user must employ in selecting a record in their system. This is in marked contrast to the approach Applicants propose, where the distinctly different procedures such as "JUMP", "INDEX" and "DIRECTORY" can be used to suit the user.

Yet further, in Claim 8, Applicants call for the ability to simply enter the request as a character sequence, i.e., enter a name in an active field (see Applicants' specification at pg. 33, ln. 22 - pg. 34, ln. 22.). This is simply neither disclosed or suggested by Cichelli et al. Accordingly, the Examiner's rejection is incorrect as a matter of fact and matter of law and must be reversed. *Kloster Speedsteel AB v. Crucible, Inc.*, 793 F.2d 1565, 1571, 230 USPQ 81, 84 (Fed. Cir. 1986), *cert. denied*, 479 U.S. 1034 (1987).

In in view of the absence of any suggestion or disclosure in the teaching of Cichelli et al. to use multiple procedures for entering a record request and the failure to suggest or disclose entry of a record name in an active field, and the absence of any other pertinent art suggesting or disclosing such features, Applicants' Claim 8 must be deemed patentable despite the Examiner's rejection of Claim 1- 4, 6, 7.

Claim 9:

In rejecting Claim 9, the Examiner once again merely refers to a portion of the Cichelli et al. specification, specifically, col. 11, lns. 26-28 and ambiguously notes "as applied to the contents of claim 6 (Action, pg. 9, ln. 17).

Applicants' Response:

Once more, the Examiner's rejection is incorrect and inadequate as a matter of fact and law. It must be reversed.

For the reasons noted in connection the rejection of Claim 8, the Examiner is incorrect in his assertion that Cichelli et al. propose multiple alternate search procedures. As described, Cichelli et al. employ but a single procedure for entering the user record request, specifically manual entry of a user-selected sequence of menu, sub-menu, relational and data screens upon which alternative choices must be designated (see col. 11, ln. 18 - col. 12, ln. 52). The Examiner's reference to the Cichelli et al. specification at col. 11, lns. 26-28 merely points out how Cichelli et al. screens are laid out and how the user navigates through them. Indeed in his reference, the Examiner further highlights that Cichelli et al. propose a single, menu-driven procedure for selecting records. *Kloster Speedsteel AB v. Crucible, Inc.*, 793 F.2d 1565, 1571, 230 USPQ 81, 84 (Fed. Cir. 1986), *cert. denied*, 479 U.S. 1034 (1987).

Claim 10:

In rejecting Claim 10, the Examiner offers an abbreviated explanation for the rejection which asserts as its basis the example menu shown at col. 11 of the Cichelli et al. specification and a notation that the menu can be interpreted as "choices of data collections." (Action, at pg. 9, ln. 23, 24)

Applicants' Response

The Examiner's rejection is again abstruse. It would appear to contend that the Cichelli et al. teaching by virtue of the menu example at col. 11, discloses use of multiple search procedures for selecting records, one of which procedures includes selection from a subject-matter listing. Such a contention is incorrect as a matter of technical fact. Accordingly, the rejection must be reversed.

Claim 10 reads:

The method of claim 6 wherein one of the multiple search procedures for entering the character sequence includes entering the character sequence as a selection of the desired application from a subject-category listing of applications.

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For the reasons noted in connection with Applicants' response to the rejection of Claims, 8 and 9, Cichelli et al. does not disclose use of multiple, independent search procedures for selecting a record. Cichelli et al. employ but a single procedure for entering the user record request, specifically manual entry of a user-selected sequence of menu, sub-menu, relational and data screens upon which alternative choices must be designated (see col. 11, ln. 18 - col. 12, ln. 52). The Examiner's reference to the example menu at col. 11, adds nothing more. No subject-category listing is suggested or disclosed in the menu example of elsewhere as an alternative to the single, menu-driven procedure Cichelli et al. propose. Cichelli et al. As a matter of fact and as a matter of simply does not disclose the recited elements of Applicants' Claim 10. The Examiner's rejection must be reversed. *Connell et al. v. Sears, Roebuck & Co.*, 722 F.2d at 1542,. 220 USPQ 193 (CA FC 1983).

In view of the absence of any suggestion or disclosure in the Cichelli et al. teaching for use of multiple procedures for entering a record request and the failure to suggest or disclose entry of a record selection from a subject-category listing, and the absence of any other pertinent art suggesting or disclosing such features, Applicants' Claim 10 must be deemed patentable despite the Examiner's rejection of Claim 1- 4, 6-9.

Claims 11-15:

In rejecting Applicants' Claims 11-15, the Examiner, in abbreviated fashion, maintained that Applicants Claims 11-15 included features similar to those included on Applicants' Claims 1-10, and thereupon summarily stated he was rejecting Claims 11-15 on the same grounds he rejected Claim 1-10. (Action, at pg. 10, lns. 4,5)

Applicants' Response:

The Examiner's contention concerning the similarity of Applicants' Claims 1-10 and 11-15 is not completely correct. Moreover, in dealing with Claims 1-10, the Examiner did not address Claim 5 at all. Accordingly, for that reason, and for the reasons noted in Applicants' responses to the rejection of Claims 1-10, the contents of

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which are incorporated herein by reference, Applicant would maintain that the Examiner has failed to establish as a matter of technical fact and as a matter of law that Applicants' Claims 11-15 are anticipated by Cichelli et al.

In the interests of brevity, Claims 11-15 will not be reproduced here, however, ready reference to the Claim text may be had in the Appendix hereafter.

As noted, while Applicants Claim 11-15 are similar to Claims 1-10, they are not identical. Specifically, Claims 13-15, while reciting the features of Applicants' invention concerning the receiving of queries for interactive applications with multiple procedures, further note that, in accordance with Applicants method, those procedures are translated in to a single procedure for generating the keyword table codes.

As pointed out in connection with the Examiner's rejection of Applicants' Claim 4, Cichelli et al. fail to suggest or disclose any procedure for generating any code other than a record identifier. Accordingly, Cichelli et al. plainly can not anticipate the table code generation features. Similarly, by virtue of the inability of Cichelli et al. to suggest or disclose procedures for generating codes for keyword tables, Cichelli et al. can not suggest or disclose a procedure for translating the multiple procedures for receiving queries into a common procedure for generating a locator table code.

Accordingly, for the reasons noted, Cichelli et al. does not as a matter of technical fact disclose the elements of Applicants' Claims 13-15, and, accordingly, can not anticipate those Claims. And, in the absence of any other art suggesting or disclosing such features, Applicants' Claims 13-15 must be deemed patentable despite the Examiner rejection of Claim 11, 12. *Kloster Speedsteel AB v. Crucible, Inc.*, 793 F.2d 1565, 1571, 230 USPQ 81, 84 (Fed. Cir. 1986), *cert. denied*, 479 U.S. 1034 (1987).

Still further, because Applicants' Claims 11-12 include different combinations of features than are found in any of Applicants' Claims 1-10, Applicants' Claims 11-12 must be deemed patentable despite the Examiner's rejection of any of Claims 1-10 individually.

III. Summary

Applicants' inventive method as claimed has been neither suggested nor disclosed by Cichelli et al. Indeed, Cichelli et al., by is different technological approach and inherent limitations, in fact teach, away for Applicants' invention. *Kloster Speedsteel AB v. Crucible, Inc.*, 793 F.2d 1565, 1571, 230 USPQ 81, 84 (Fed. Cir. 1986), *cert. denied*, 479 U.S. 1034 (1987); *Elmer v. ICC Fabricating Inc.*, 36 USPQ2d 1417, 1419-1420 (Fed. Cir. 1995); *Richardson v. Suzuki Motor Co. Ltd.*, 869 F.2d 1226, 9 USPQ2d 1913 (Fed. Cir. 1989); *Connell et al. v. Sears, Roebuck & Co.*, 722 F.2d at 1542, 220 USPQ 193 (CA FC 1983).

Applicants invention is directed to a method for reducing search and access time in large database of the type intended to support interactive services. Additionally, it features steps for simplifying the search process by providing users alternative strategies for entering queries which do not degrade search and retrieval performance.

Applicants do this by condensing the search process with pre-created subset searches of the database which can be accessed quickly and without need to review all the records of the database. As described, Applicants do this by creating tables of keywords indexed to identifications for the data records necessary to support the applications. Further, Applicants simplify the search process by coding the subset searches so they can be readily identified with multiple, different search strategies such as direct name entry, indexing, and subject categories, among other.

Cichelli et al. on the other hand, neither do, nor suggest any of these things. The Cichelli et al. teaching is directed to small databases in a non-interactive system. It concerns Teletext technology and sequential databases which are the direct opposites of the interactive, Videotext, approach of Applicants. Moreover, and most importantly, Cichelli et al. give no consideration at all to attempting to reduce record search and retrieval time. Their search and retrieval procedures concern only direct recourse to the main database. Indeed, by its inherent limitations and initial design, Cichelli et al. type systems are not concerned with the problems faced by Applicants. The Cichelli

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et al. database must be kept small to facilitate reasonable access time in view of the need to have the database records circulate. And, by virtue of its restricted database size, Cichelli et al. can and do undertake primary search of the records that make up their system. There is no suggestion whatsoever, for doing any preliminary searching against subsets of the databases in the Cichelli et al. teaching. Cichelli et al. present their entire database in an elaborate system of menu, sub-menu, relational and data screens which it requires the user to navigate through and make choices from in order to identify the records desired. And as such, Cichelli et al. teaches nothing more than a conventional, menu-driven, although, cleverly laid out search procedure to access its records.

Cichelli et al. fail to disclose fundamental elements of Applicants' invention. Cichelli et al. do not suggest or disclose record locators, for example, keywords, indexed to identifiers for respective records, the locators collected in groups as predetermined subset searches of the database, and those groups then separately coded so the groups can be searched instead of the main database to expedite record location. And, Cichelli et al. fail to suggest or disclose arranging such a retrieval method so that multiple, independent search strategies to simply use can be translated into a single common record-identification process. *Richardson v. Suzuki Motor Co. Ltd.*, 869 F.2d 1226, 9 USPQ2d 1913 (Fed. Cir. 1989);

For the reasons noted here and above, Cichelli et al. neither suggests nor discloses Applicants' invention as claimed. Accordingly, the Examiner rejection of Applicants' claims as anticipated under §102(b) in view of Cichelli et al. must be reversed. *Kloster Speedsteel AB v. Crucible, Inc.*, 793 F.2d 1565, 1571, 230 USPQ 81, 84 (Fed. Cir. 1986), *cert. denied*, 479 U.S. 1034 (1987); *Elmer v. ICC Fabricating Inc.*, 36 USPQ2d 1417, 1419-1420 (Fed. Cir. 1995).

Still further, neither is Applicants' invention as claimed indefinite when read in light of the specification by one skilled in the art. *Orthokinetics Inc. v. Safety Travel Chairs Inc.*, 806 F.2d 1565, 1 USPQ2d 1081, (Fed. Cir. 1986); *Shatterproof Glass Corp. v. Libby-*

Owens Ford Co., 758 F.2d 613, 225 USPQ 634, (Fed. Cir. 1985); *Miles Laboratories Inc. v. Shandon Inc.*, 997 F.2d 870, 27 USPQ2d 1123, (Fed. Cir. 1993). As noted each of the elements of Applicants claims are described in detail in their specification and one skilled in the art is able to learn the scope of Applicants' invention upon a reading of those claims read in light of the specification. And indeed, this is apparent for the Examiners' ability to search the art and comprehend the invention. The Examiner's rejections of indefiniteness are without foundation and must be reversed.

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Table Of Cases

Elmer v. ICC Fabricating Inc., 36 USPQ2d 1417, 1419-1420 (Fed. Cir. 1995)

In re Warmerdam, 33 F3d 1354, 31 USPQ2d 1754, (Fed. Cir. 1994),

Miles Laboratories Inc. v. Shandon Inc., 997 F.2d 870, 27 USPQ2d 1123, (Fed. Cir. 1993).

North American Vaccine Inc. v. American Cyanamid Co., 7 F3d 1571, 28 USPQ2d 1333, 1339 (Fed. Cir. 1993).

Richardson v. Suzuki Motor Co. Ltd., 869 F.2d 1226, 9 USPQ2d 1913 (Fed. Cir. 1989)

Kloster Speedsteel AB v. Crucible, Inc., 793 F.2d 1565, 1571, 230 USPQ 81, 84 (Fed. Cir. 1986), *cert. denied*, 479 U.S. 1034 (1987);

Orthokinetics Inc. v. Safety Travel Chairs Inc., 806 F.2d 1565, 1 USPQ2d 1081, (Fed. Cir. 1986).

Orthokinetics Inc. v. Safety Travel Chairs Inc., 806 F.2d 1565, 1 USPQ2d 1081, (Fed. Cir. 1986).

Connell et al. v. Sears, Roebuck & Co., 722 F.2d at 1542, 220 USPQ 193 (CA FC 1983)

APPENDIX

APPEALED CLAIMS:

1. A method of searching for and retrieving records included in a database provided in a computer network, the network having a plurality of reception systems at which respective users can request and retrieve respective records, the method comprising the steps of:

a. providing record locators indexed to record identifiers for the respective database;

b. arranging multiple locators and respective indexed identifiers in a plurality of groups, the groups respectively establishing predetermined subset searches of the database records;

c. assigning code designations to the respective locator groups;

d. generating a locator group code designation in response to a request for a record so that a group of record locators may be provided at the reception system and so that a locator may be selected which enables identification and retrieval of the record.

2. The method of claim 1 wherein providing record locators indexed to record identifiers includes setting the locators as mnemonics that are indexed to the respective identifiers for the respective records in the database.

3. The method of claim 2 wherein arranging the locators in groups includes arranging the locator mnemonics in tables in which the respective mnemonics are indexed to the respective record identifiers.

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4. The method of claim 3 wherein assigning code designations to the respective locator groups includes establishing the respective code designations as alphabetically sequenced character strings such that when a character sequence is entered at a reception system to designate a requested record, a locator table may be provided at the reception system from which a group of repective record identifiers may be selected.

5. The method of claim 4 wherein providing record locators indexed to respective record identifiers includes establishing the locators as keywords and wherein the character sequence entered at the reception system to designate a requested record may be entered using a plurality of search procedures.

6. The method of claim 5 wherein the records to be searched for and retrieved are interactive applications associated with an interactive service, and wherein the applications are arranged to be generated from objects.

7. The method of claim 6 wherein providing locator keywords indexed to respective record identifiers includes establishing the identifiers as object identifications.

8. The method of claim 6 wherein one of the multiple search procedures for entering the character sequence at the reception system includes entering the character sequence as a description of a desired application.

9. The method of claim 6 wherein one of the multiple search procedures for entering the character sequence includes entering the character sequence as a selection of the desired application from an alphabetical listing of applications.

10. The method of claim 6 wherein one of the multiple search procedures for entering the character sequence includes entering the character sequence as a selection of the desired application from a subject-category listing of applications.

11. A method of searching for and retrieving applications included as records in an interactive service database stored in a computer network, the network having a plurality of reception system at which respective users can request and retrieve applications, and the applications being made up of objects collectively containing presentation data and program instructions, the method comprising the steps of:

- a. preparing a plurality of tables, each table including keywords respectively referenced to application identifiers so that each establishes a predetermined subset search of the applications stored in the service database;
- b. providing each table with a unique code designation;
- c. generating a table code designation in response to a query entered at the reception system for an application;
- d. comparing the table code designation generated with the available table code designations to select a table suited to the query;
- e. providing the table at the reception system at which the query was entered so that the requested application may be identified from the table and so that the application may be retrieved at the reception system where the query was entered.

12. The method of claim 11 wherein preparing the tables includes establishing the application identifiers as object identifiers for objects used in composing the respective applications, and wherein assigning the respective code designations for the tables includes supplying one or more letters in combination to identify the respective tables.

13. The method of claim 12 wherein generating the table code identifiers includes receiving a query for applications produced using one of a plurality of different procedures and translating the query produced using one of the different procedures into a single procedure common to all procedures for generating the table code designations, the table code designations including one or more letters in combination to uniquely identify a table.

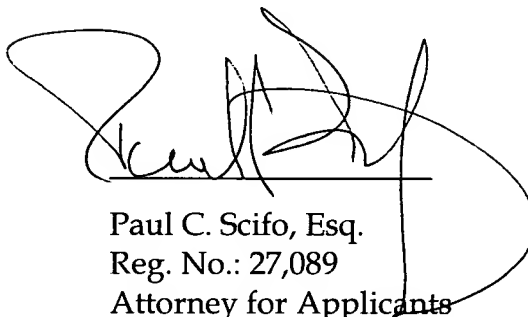
14. The method of claim 13 wherein the generating of the table code designations includes receiving a query from the user for an application with a procedure selected from the group of procedures consisting of selection by character string, alphabetical listing and category listing.

15. The method of claim 14 wherein the processing of table identified applications includes collecting at the reception system the objects which make up the application that are derived by using the identified table, and executing the objects so as to present the corresponding text and graphic data for review.

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Dated: January 19, 1996,

Respectfully submitted,



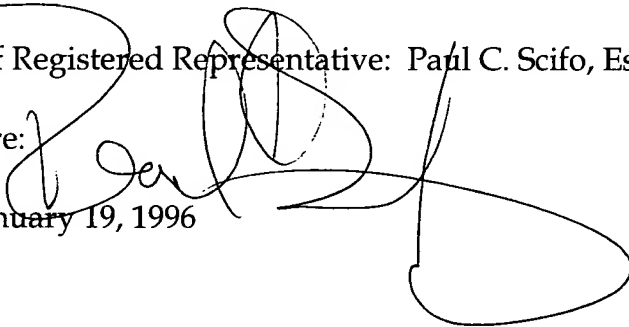
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I hereby certify that this correspondence is being deposited with the United States Postal Service as first-class mail in an envelope addressed to the Commissioner of Patents and Trademarks, Washington, D.C. 20231, on January 19, 1996

Name of Registered Representative: Paul C. Scifo, Esq.

Signature:

Date: January 19, 1996



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